Liu, Z., He, X. and Chapman, R.S., "Smoking and Other Risk Factors for Lung Cancer in Xuanwei, China," International Journal of Epidemiology 20(1): 26-31, 1991.

Lung cancer rates in Xuanwei County are among the highest in China. Previous studies (not epidemiologic) have suggested that there may be an association between burning smoky coal indoors and lung cancer incidence. This case-control study included 110 cases (56 males, 54 females) and 426 controls matched for age, sex, occupation (all were farmers), and village of residence (to control for type of fuel used). Only one of the female cases reported having ever smoked. Among men, the authors reported a statistically significant dose-response relationship with active smoking; however, of all the indices used to examine active smoking, only one category had a reported odds ratio that achieved statistical significance.

ETS exposure was assessed in women as whether there was at least one smoker (usually the husband) living in the same household. For 45 cases and 176 controls, an adjusted OR of 0.77 (95% CI 0.30-1.96) was reported.

Statistically significant increases in risk were reported for a number of other factors. In females, these were chronic bronchitis, OR = 7.37 (95% CI 2.40-22.66) and family history of lung cancer, OR = 4.18 (95% CI 1.61-10.85); in males, the associations were with chronic bronchitis, OR = 7.32 (95% CI 2.66-20.18), family history of lung cancer, OR = 3.79 (95% CI 1.70-8.42), and personal history of cooking food, OR = 3.36 (95% CI 1.27-8.88). Associations with lung cancer were also suggested for duration of cooking food and age at starting to cook for women (cooking takes place over coal-fired stoves).